

**Amendments to the Drawings:**

The attached replacement drawing sheets makes changes to Figs. 1 and 10-13 and replace the original sheets with Figs. 1 and 10-13.

Attachment: Replacement Sheets

**REMARKS**

Claims 1-15 are pending in this application. By this Amendment, claim 15 is added. No new matter is added.

Applicant appreciates the Office Action's indication that claim 13 contains allowable subject matter. However, for at least the reason discussed below, the Applicant respectfully submits that all of the claims are allowable.

**I. Objections**

The Office Action objects to the drawings. The Office Action asserts that the "object to be illuminated" of claim 1, line 6 is not depicted. Fig. 1 has been revised to depict the object to be illuminated. Withdrawal of this objection is respectfully requested.

The Office Action asserts that the figures do not depict a "light controlling means having a refractive index ... parallel and vertical to the light exit surface of the light conductive plate," per claim 1, lines 9 and 10. The light controlling means 4 is depicted in Fig. 1. The light controlling means is further described and depicted in Figs. 2-5. Variation of the refractive index profile corresponding to height of the light controlling means 4 is depicted in Figs. 7A-7D. Variation of the refractive index profile corresponding to the width of light controlling means 4 is depicted in Figs. 9A-9D. Withdrawal of this objection is respectfully requested.

**II. Rejections under 35 U.S.C. §102**

The Office Action rejects claims 1, 6-12 and 14 under 35 U.S.C. §102(b) as being anticipated by Akoaka (U.S. Patent 6,540,368). Applicants respectfully traverse this rejection.

Specifically, the Applicants assert that Akoaka does not teach or suggest at least one light controlling means disposed between the at least one light source and the light conductive plate, and defining a light entrance surface and a light exit surface, the at least independent

one light controlling means having a refractive index profile formed in both directions parallel to and vertical to the light exit surface of the light conductive plate, as recited in independent claims 1 and 15.

Further, Akoaka does not teach or disclose the refractive index profile is constituted symmetrical relative to the center of the light entrance surface and the light exit surface of the light controlling means, as additionally recited in independent claim 15.

Akoaka teaches an optical path conversion means composed of grooves formed parallel to the thickness direction of each plate-like conductive member and flat portions provided on one surface of each of the plate-like conductive members. Akoaka Figs. 2 and 3. Each groove 15A-15E of each plate-like light conductive member overlaps partly with each groove of adjacent plate-like light conductive members thereby constituting each multiple groove. A plurality of multiple grooves 15A-15E in the light conductive member are formed with inclination such that one multiple groove thereof overlaps partly with adjacent multiple grooves with the longitudinal direction of the light conductive member. Akoaka Figs. 1-3.

The refractive index profile of the light conductive means 3 in Akoaka is not disclosed. The light conductive means 3 of Akoaka is a multilayered plurality of plate-like light conductive members 3A, 3B, 3C, 3D and 3E (Fig. 2). The plate-like members 3A-3E have notches placed along one edge, which are triangular in the preferred embodiment. Akoaka does not teach or disclose variation in the refractive index profile of the plate-like light conductive members 3A-3E.

Finally, the Office Action asserts that light control means in Akoaka is structured such that a refractive index variation appears repeatedly in the direction parallel to and the light exit surface of the light conductive plate/defines a smoothly curved envelope (3, Fig. 2). Akoaka teaches a light controlling means 3 composed of plate-like light conductive members 3A-3E which functions by reflecting the light from the surfaces of the notched grooves.

Since the grooves 15A-15E on the plate-like light conductive members 3A-3E are each formed parallel to the thickness direction of the light conductive member 3, light reflected at flat surfaces of the grooves 15A-15E is efficiently guided into the transparent substrate 2, and the brightness can be prevented from degrading. Akoaka, col. 5, lines 60-66 (emphasis added).

For at least these reasons, Akoaka does not anticipate independent claims 1 and 15. Applicant submits that independent claim 1 defines patentable subject matter; claims 6-12 and 14 define patentable subject matter for their dependence on independent claim 1, as well as for the additional features they recite.

### **III. Rejections under 35 U.S.C. §103**

The Office Action rejects claims 2-5 under 35 U.S.C. §103(a) as being unpatentable over Akoaka. The Office Action asserts that Akoaka discloses the claimed invention including light control means structured such that a refractive index variation appears repeatedly in the direction parallel to and the light exit surface of the light conductive plate (3, Fig. 2), but does not specifically disclose a plurality of arrangements for manipulating a light index. Akoaka, as discussed above, teaches the use of light reflective surfaces and does not teach or suggest refractive index variation. No prior art reference has been cited in which this feature is taught or suggested.

The Office Action rejects claim 8 under 35 U.S.C. §103(a) as being unpatentable over Akoaka. Claim 8 depends from and inherits all the features of independent claim 1 and is patentable for at least that reason, as well as for the additional features claim 8 recites.

For at least these reasons, in addition to their dependency on independent claim 1, claims 2-5 and 8 are not anticipated by or obvious in view of the cited prior art. Withdrawal of these rejections is respectfully requested.

**IV. Summary**

Accordingly, reconsideration and withdrawal of the rejections of claims 1-12 and 14 under 35 U.S.C. §§102(b) or 103(a) over Akoaka are respectfully requested.

In view of the foregoing, Applicant respectfully submits that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-15 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned representative at the telephone number listed below.

Respectfully submitted,



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JAO:DAD/brp

Attachment:  
Replacement Sheets

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